

ABSTRACT

Systems and methods for producing three-dimensional objects are provided. One exemplary system, among others, includes a layer forming system. The layer forming system is operative to implement criteria for forming the three-dimensional object. The three-dimensional object includes a plurality of layers and each layer includes layers selected from a shell layer and an interior layer. The shell layer includes at least one shell voxel, and the interior layer includes at least one interior voxel. In addition, the layer forming system is operative to form the layers in an iterative manner according to the criteria, plane at least one layer in a manner according to the criteria, control waste produced by controlling the formation of the layers using the criteria provided, and form the object.